

Patent Claims

1. Optical module containing a support (T) in which a groove (VG) is introduced and an optical fibre (F) mounted
5 in the groove (VG) characterized by a contact layer (CL) that is applied to the support (T) and comprises a plurality of strips extending essentially perpendicularly to the groove (VG) and that forms a mechanical joint with the fibre (F) when the fibre (F) is pressed into the groove
10 (VG).

2. Optical module according to Claim 1, in which the strip-shaped contact layer (CL) is composed of aluminium
15 (Al).

3. Optical module according to Claim 1, in which the fibre (F) is composed of SiO_2 or is coated with SiO_2 .

4. Optical module according to Claim 1, in which between
20 two and four strips having a width of about 200 μm each are provided.

5. Optical module according to Claim 1, in which a multiplicity of strips are provided that have a width of up
25 to a few tens of micrometres.

6. Optical module according to Claim 1, in which the strips are each structured in turn to form a plurality of narrow ribs.
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7. Optical module according to Claim 1, in which the groove (VG) is a V-groove.

8. Optical module according to Claim 1, in which the last subsection of the groove (VG) in the direction of the support edge is free of the contact layer (CL).

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9. Support (T) for an optical module, containing a groove (VG) for fixing an optical fibre (F), characterized by a contact layer (CL) applied to the support (T) and composed of a plurality of strips extending essentially

10 perpendicularly to the groove (VG) and that forms a mechanical joint with the fibre (F) when the fibre (F) is pressed into the groove (VG).

10. Method of producing an optical module containing a support (T) into which a groove (VG) has been introduced and an optical fibre (F) mounted in the groove (VG), comprising the following steps:

- . introduction of the groove (VG) into the support (T),
- . application of a contact layer (CL) that is composed of a plurality of strips extending essentially
- 20 perpendicularly to the groove (VG) and that forms a mechanical joint with the fibre (F) when the fibre (F) is pressed into the groove (VG), and
- . pressing of the optical fibre (F) into the groove
- 25 (VG).

11. Method according to Claim 10, in which the fibre (F) is stripped before being pressed in.

30 12. Method according to Claim 10, in which the pressing-in is carried out at a temperature of 200° to 400°C, preferably of 300° to 350°C.

13. Method according to Claim 10, in which the contact layer (CL) is applied by sputtering and, in which process, a mask having slots is used for the contact-layer strips.

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14. Method according to Claim 10, in which the contact layer (CL) is applied as a blanket and then structured by applying an etching procedure to form strips extending essentially perpendicularly to the groove (VG).

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